Listing of the Claims:

1. (Currently amended) A bipolar battery cell comprising:

a plurality of electric cells, each electric cell comprising:

a bipolar electrode including a collector having a positive-electrode layer on one surface and a negative-electrode layer on an opposing surface;

an electrolyte layer that exchanges ions between the positive-electrode layer and the negative electrode layer; ~~and~~

a discharge circuit printed ~~on~~ in one ~~or more~~ of the positive-electrode layer, the ~~negative electrode~~ negative-electrode layer and electrolyte layer within each electric cell, the discharge circuit configured within each bipolar electrode to electrically balance charged conditions of adjacent electric cells;

a first pair of conductive bodies located in the one of the positive-electrode layer, the negative-electrode layer and electrolyte layer having the discharge circuit, wherein one of the first pair is in contact with one side of the discharge circuit and another of the first pair is in contact with an opposing side of the discharge circuit; and

a second pair of conductive bodies, wherein one of the second pair of conductive bodies is in an adjacent layer to the discharge circuit and another of the second pair is in another adjacent layer to the discharge circuit such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the layers are stacked.

2. (Canceled).

3. (Currently amended) The bipolar battery cell of claim 1, further comprising a contact area between the discharge circuit and ~~an adjacent bipolar electrode~~ the electric cell within which the discharge circuit is located that is more than 0.06 mm^2 per battery capacity of the bipolar battery of 1 Ah.

4. (Previously presented) The bipolar battery cell of claim 1, wherein a threshold of a discharge voltage in the discharge circuit is set between 3.6 V – 4.1 V, and wherein a doping concentration is set between $10^{17} - 10^{18}$ cm^{-3}, and the thickness of a depletion layer is set between 0.1 μm – 1.0 μm so as to set a breakdown voltage of a PN junction of the discharge circuit the same as to the threshold.

5. (Original) The bipolar battery cell of claim 1, wherein the discharge circuit includes a zener diode layer.

6. (Original) The bipolar battery cell of claim 1, wherein the discharge circuit includes a luminescent device.

7. (Original) The bipolar battery cell of claim 6, further comprising a light guiding device arranged between the luminescent device and an end of the battery cell.

8. (Original) The bipolar battery cell of claim 6, further comprising a light sensor that responds to light emitted from the relevant luminescent device.

9. (Original) The bipolar battery cell of claim 8, wherein the discharge circuit includes a constant current circuit.

10. (Original) The bipolar battery cell of claim 9, further comprising a sheathing material that covers and seals the bipolar electrodes, the electrolyte layers, the discharge circuit, and the light sensor.

11. (Original) The bipolar battery cell of claim 1, further comprising a sheathing material that covers and seals the bipolar electrodes, the electrolyte layers, and the discharge circuit.

12. (Currently amended) The bipolar battery cell of claim 1, further comprising a conductive sealing material printed on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer.

13. (Currently amended) An assembled battery comprising a plurality of bipolar battery cells, wherein each bipolar battery cell comprises a plurality of electric cells, each electric cell comprising:

a laminated bipolar electrode including a collector having a positive-electrode layer on one surface and a negative-electrode layer on an opposing surface;

an electrolyte layer that exchanges ions between the positive-electrode layer and the negative electrode layer; ~~and~~

a discharge circuit printed on one ~~or more~~ of the positive-electrode layer, the ~~negative electrode~~ negative-electrode layer and electrolyte layer that electrically balances charged conditions of adjacent bipolar electrodes;

a first pair of conductive bodies located in the one of the positive-electrode layer, the negative-electrode layer and electrolyte layer having the discharge circuit, wherein one of the first pair is in contact with one side of the discharge circuit and another of the first pair is in contact with an opposing side of the discharge circuit; and

a second pair of conductive bodies, wherein one of the second pair of conductive bodies is in an adjacent layer to the discharge circuit and another of the second pair is in another adjacent layer to the discharge circuit such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the layers are stacked.

14. (Currently amended) A vehicle comprising:

a controller; and

an assembled bipolar battery comprising a plurality of bipolar battery cells, wherein each bipolar battery cell comprises a plurality of electric cells, each electric cell comprising:

a bipolar electrode including a collector having a positive-electrode layer on one surface and a negative-electrode layer on an opposing surface;

an electrolyte layer that exchanges ions between the positive-electrode layer and the negative electrode layer; ~~and~~

a discharge circuit printed on one ~~or more~~ of the positive-electrode layer, the ~~negative electrode~~ negative-electrode layer and electrolyte layer that electrically balances charged conditions of adjacent bipolar electrodes;

a first pair of conductive bodies located in the one of the positive-electrode layer, the negative-electrode layer and electrolyte layer in which the discharge circuit is printed, wherein one of the first pair is in contact with one side of the discharge circuit and another of the first pair is in contact with an opposing side of the discharge circuit; and

a second pair of conductive bodies, wherein one of the second pair of conductive bodies is in an adjacent layer to the discharge circuit and another of the second pair is in another adjacent layer to the discharge circuit such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the layers are stacked.

15. (Currently amended) A method of forming a bipolar battery cell, each bipolar battery cell comprising a plurality of electric cells, the method comprising:

~~laminating a bipolar electrode including~~ stacking a collector having a positive-electrode layer with a conductive body on one surface of the collector and a negative-electrode layer having another conductive body on an opposing surface of the collector, with an electrolyte layer that exchanges ions between the positive-electrode layer and the ~~negative electrode~~ negative-electrode layer and, the electrolyte layer having a discharge circuit ~~printed on one or more of the positive-electrode layer, the negative electrode layer and electrolyte layer that~~ therein, wherein the discharge circuit is contacted on opposing sides with additional conductive bodies in the electrolyte layer and electrically balances charged conditions of adjacent bipolar electrodes to form each electric cell of the plurality of electric cells; and

wherein stacking the collector with the positive-electrode layer and negative-electrode layer with the electrolyte layer occurs such that each of the conductive bodies in the electrolyte layer aligns with a different conductive body in adjacent layers.

16. (Canceled).

17. (Currently amended) A bipolar battery cell comprising:

a plurality of electric cells, each electric cell comprising:

a bipolar electrode including a collector having a positive-electrode layer on one surface and a negative-electrode layer on an opposing surface;

means for exchanging ions between the positive-electrode layer and the ~~negative electrode~~ negative-electrode layer; ~~and~~

means for balancing the bipolar battery cell by electrically balancing charged conditions of adjacent bipolar electrodes, the means for balancing located on one ~~or more~~ of the positive-electrode layer, the ~~negative electrode~~ negative-electrode layer and electrolyte layer;

a first pair of conductive bodies located in the one of the positive-electrode layer, the negative-electrode layer and electrolyte layer having the means for balancing, wherein each of the first pair is in contact with the means for balancing; and

a second pair of conductive bodies, wherein one of the second pair of conductive bodies is in an adjacent layer to the means for balancing and another of the second pair is in another adjacent layer to the means for balancing such that each of the second pair of conductive bodies is vertically aligned with a different one of the first pair of conductive bodies when the layers are stacked.

18. (Previously presented) The bipolar battery cell of claim 1, wherein the discharge circuit comprises an abnormal voltage detecting circuit and a voltage balancing circuit.

19. - 20. (Canceled)

21. (New) The assembled battery of claim 13, wherein the laminated bipolar electrode further includes a conductive sealing material printed on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer.

22. (New) The vehicle of claim 14, wherein each electric cell further comprises a conductive sealing material printed on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer.

23. (New) The method of claim 15, further comprising providing a conductive sealing material on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer prior to stacking.

24. (New) The bipolar battery cell of claim 17, wherein each electric cell further comprises a conductive sealing material printed on an outermost periphery of each of the positive-electrode layer, the negative-electrode layer and electrolyte layer.